

said compound has a lyotropic degree as defined below of not less than 4%, and

said compound provides at least two properties selected from the following paper quality improving properties (i) to (iii):

(i) a standard improved bulky value of at least 0.02 g/cm³,

(ii) a standard improved brightness of at least 0.5 point, and

(iii) a standard improved opacity of at least 0.5 point;

and wherein the

lyotropic degree (%) = $(\alpha_0 - \alpha) / \alpha_0 \times 100$

wherein

α is the water content in a wet sheet obtained by adding 5 parts by weight of the compound to 100 parts by weight of the pulp blend and subjecting the pulp blend to papermaking; and

α_0 is the water content in a wet sheet obtained by subjecting the pulp blend to papermaking without adding the compound to the pulp blend

wherein said compound can be added to the material pulp either before or during a paper making step and

wherein the compound is selected from the group consisting of

(A) organosiloxane, (B) glyceryl ether, (C) acid salt of amine, (D) quaternary ammonium salt, (E) imidazole, (F) ester of polyhydric alcohol and fatty acid and (G) alkylene oxide-added

ester being an ester derived from polyhydric alcohol and fatty acid and having from more ~~0~~ mole to less 12 moles on average of C₂₋₄ alkylene oxide group per 1 mole of the ester.

3. (Twice Amended) The composition of Claim 1, which further comprises at least one compound selected from (a) anionic surfactant and (b) cationic surfactant.

4. (Twice Amended) The composition of claim 1, which provides a standard improved bulky value of at least 0.02 g/cm³.

5. (Twice Amended) The composition of Claim 1, which provides a standard improved brightness of at least 0.5 point.

6. (Twice Amended) The composition of Claim 1, which provides a standard improved opacity of at least 0.5 point.

7. (Twice Amended) A method for producing a pulp sheet comprising the steps of taking a composition for improving paper making quality wherein said composition comprises a compound and a pulp blend, wherein

said pulp blend contains a deinked pulp in an amount of 10% or more by weight in a material pulp and

said compound has a lyotropic degree as defined below of not less than 4%, and

said compound provides at least two properties selected from the following paper quality improving properties (i) to (iii):

(i) a standard improved bulky value of at least 0.02 g/cm³,

(ii) a standard improved brightness of at least 0.5 point,

and

(iii) a standard improved opacity of at least 0.5 point;

and wherein the

$$\text{lyotropic degree (\%)} = (\alpha_0 - \alpha) / \alpha_0 \times 100$$

wherein

α is the water content in a wet sheet obtained by adding 5 parts by weight of the compound to 100 parts by weight of the pulp blend and subjecting the pulp blend to papermaking; and α_0 is the water content in a wet sheet obtained by subjecting the pulp blend to papermaking without adding the compound to the pulp blend and

adding the compound to the material pulp before or during the papermaking step and

producing a pulp sheet.

8. (Twice Amended) The method for producing a pulp sheet according to claim 7, further comprising adding an agent that

promotes fixation of the compound onto the pulp sheet, said compound being added either before or during the papermaking step.

9. (Twice Amended) A pulp sheet produced by adding the compound as defined in Claim 1 before or during the papermaking step.

14. (Amended) A composition for improving paper making quality comprising;

a compound and a pulp blend, wherein

said pulp blend contains a deinked pulp in an amount of 10% or more by weight in a material pulp, and

said compound has a lyotropic degree as defined below of not less

than 4%, and

said compound provides at least two properties selected from the following paper quality improving properties (i) to (iii):

(i) a standard improved bulky value of at least 0.02 g/cm^3 ,

(ii) a standard improved brightness of at least 0.5 point,

and

(iii) a standard improved opacity of at least 0.5 point;

and wherein the

$$\text{lyotropic degree (\%)} = (\alpha_0 - \alpha) / \alpha_0 \times 100$$

wherein α is the water content in a wet sheet obtained by adding 5 parts by weight of the compound, which is the paper quality improver for the paper making to 100 parts by weight of the pulp blend and subjecting the pulp blend to papermaking; and

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 α_0 is the water content in a wet sheet obtained by subjecting the pulp blend to papermaking without adding the compound to the pulp blend wherein said compound is added to the material pulp before a paper making step and wherein the compound is selected from the group consisting of (A) organosiloxane, (B) glyceryl ether, (C) acid salt of amine, (D) quaternary ammonium salt, (E) imidazoe, (F) ester of polyhydric alcohol and fatty acid and (G) alkylene oxide-added ester being an ester derived from polyhydric alcohol and fatty acid and having from more 0 mole to less 12 moles on average of C₂₋₄ alkylene oxide group per 1 mole of the ester.